

Amendments to the Claims

The following Listing of Claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-27 (canceled):

Claim 28 (currently amended): A method of processing an input image, comprising:
identifying a set of candidate redeye pixel areas in the input image;
projecting input image data into a feature space spanned by multiple features to generate feature vectors respectively representing the candidate redeye pixel areas in the feature space, wherein each of the feature vectors comprises a respective set of weights corresponding to respective ones of the features, and the projecting comprises for each of the feature vectors determining a respective one of the weights from multiple values of a statistical measure that are derived from respective sets of image values corresponding to different respective regions of the input image; and
filtering from the set ones of the candidate redeye pixel areas from the set classified as non-redeye pixel areas based on the generated feature vectors.

Claim 29 (original): The method of claim 28, wherein at least some of the features are contrast features corresponding to respective measurements of local contrast.

Claim 30 (original): The method of claim 29, wherein the contrast features are orientation independent with respect to the input image.

Claim 31 (original): The method of claim 29, wherein a given contrast feature weight is computed based on a feature template and a feature plane.

Claim 32 (currently amended): A method of processing an input image, comprising: identifying a set of candidate redeye pixel areas in the input image;

projecting input image data into a feature space spanned by multiple features to generate feature vectors respectively representing the candidate redeye pixel areas in the feature space~~The method of claim 31~~, wherein at least some of the features are contrast features corresponding to respective measurements of local contrast, a given contrast feature weight is computed based on a feature template and a feature plane, and the feature template is a concentric template specifying a contrast measurement between a central basis region and a basis region surrounding the central basis region; and
filtering candidate redeye pixel areas from the set based on the generated feature vectors.

Claim 33 (original): The method of claim 32, wherein the surrounding basis region is contiguous with the central basis region.

Claim 34 (original): The method of claim 32, wherein the surrounding basis region is spaced apart from the central basis region.

Claim 35 (currently amended): A method of processing an input image, comprising: identifying a set of candidate redeye pixel areas in the input image; projecting input image data into a feature space spanned by multiple features to generate feature vectors respectively representing the candidate redeye pixel areas in the feature space, wherein at least some of the features are contrast features corresponding to respective measurements of local contrast, a given contrast feature weight is computed based on a feature template and a feature plane, and~~The method of claim 31~~, wherein the feature template is a circular template specifying a contrast between a central basis region and a basis region adjacent to the central basis region; and
filtering candidate redeye pixel areas from the set based on the generated feature vectors.

Claim 36 (original): The method of claim 35, wherein computing the given contrast feature weight comprises computing contrast values for multiple rotational orientations of the feature template.

Claim 37 (original): The method of claim 36, wherein computing the given contrast feature weight further comprises assigning an extrema of the computed contrast values to the given contrast feature weight.

Claim 38 (currently amended): A method of processing an input image, comprising: identifying a set of candidate redeye pixel areas in the input image; projecting input image data into a feature space spanned by multiple features to generate feature vectors respectively representing the candidate redeye pixel areas in the feature space, wherein at least some of the features are contrast features corresponding to respective measurements of local contrast, a given contrast feature weight is computed based on a feature template and a feature plane, and~~The method of claim 31, wherein~~ the feature template is a circular template specifying a contrast measurement between a pair of basis regions respectively located at opposite ends of a first axis crossing a central region at a first angle and an adjacent pair of basis regions respectively located at opposite ends of a second axis crossing the central region at a second angle different from the first angle; and filtering candidate redeye pixel areas from the set based on the generated feature vectors.

Claim 39 (original): The method of claim 38, wherein the first and second axes are orthogonal.

Claim 40 (currently amended): A method of processing an input image, comprising: identifying a set of candidate redeye pixel areas in the input image; projecting input image data into a feature space spanned by multiple features to generate feature vectors respectively representing the candidate redeye pixel areas in the feature space, wherein at least some of the features are contrast features corresponding to respective measurements of local contrast, a given contrast feature weight is computed based on a feature template and a feature plane, The method of claim 31, wherein each feature plane is a scalar image computed from input image data, and at least one feature plane corresponds to a mapping of input image data to one of a grayscale image, a CIE-Lab color space representation of the input image data, and a redness image.

Claim 41 (currently amended): The method of claim 4031, wherein at least one feature plane corresponds to a mapping of input image data to a grayscale image.

Claim 42 (currently amended): The method of claim 4031, wherein at least one feature plane corresponds to a mapping of input image data to an a-plane in a CIE-Lab color space representation of the input image data.

Claim 43 (currently amended): The method of claim 4031, wherein at least one feature plane corresponds to a mapping of input image data to a redness image.

Claim 44 (currently amended): A method of processing an input image, comprising:
identifying a set of candidate redeye pixel areas in the input image;
projecting input image data into a feature space spanned by multiple features to
generate feature vectors respectively representing the candidate redeye pixel areas in the
feature space, wherein at least some of the features are contrast features corresponding to
respective measurements of local contrast, a given contrast feature weight is computed based
on a feature template and a feature plane, and~~The method of claim 31, wherein each feature~~
template is defined by a set of basis regions and a scale factor; and
filtering candidate redeye pixel areas from the set based on the generated feature
vectors.

Claim 45 (currently amended): The method of claim 42-~~44~~ wherein the scale factor specifies a scale for the basis regions relative to a candidate redeye pixel area.

Claim 46 (currently amended): The method of claim 28, wherein the projecting
comprises for each of the candidate redeye pixel areas
determining a respective iris area, and
calculating at least one weight of the respective feature vector from a proportion of~~is~~
based on pixels near~~in~~ a neighborhood of the respective iris area that are a candidate redeye
pixel area and classified as a skin tone pixels.

Claim 47 (currently amended): The method of claim 28, wherein the projecting comprises for each of the candidate redeye pixel areas
measuring an aspect ratio of the candidate redeye pixel area, and
calculating at least one weight of the respective feature vector ~~is based on an the~~
measured aspect ratio measurement of the candidate redeye pixel area.

Claim 48 (original): The method of claim 28, wherein at least one feature is based on a ratio of pixels in a candidate redeye pixel area classified as redeye pixels.

Claim 49 (currently amended): The method of claim 28, wherein the projecting comprises for each of the candidate redeye pixel areas
measuring a dynamic range of pixel values in a central basis region of the candidate redeye pixel area, and
calculating at least one weight of the respective feature ~~weight is computed vector~~
based on ~~a the measured dynamic range of pixel values in a central basis region.~~

Claim 50 (currently amended): The method of claim 28, wherein the projecting comprises for each of the candidate redeye pixel areas
measuring a standard deviation of pixel values in a central basis region of the candidate redeye pixel area, and
calculating at least one weight of the respective feature ~~weight is computed vector~~
based on ~~a the measured standard deviation of pixel values in a central basis region.~~

Claim 51 (currently amended): A system ~~of for~~ processing an input image, comprising a memory and a redeye detection module operable to:
identify a set of candidate redeye pixel areas in the input image;
project input image data into a feature space spanned by multiple features to generate feature vectors respectively representing the candidate redeye pixel areas in the feature space,
wherein each of the feature vectors comprises a respective set of weights each of which is computed for a respective one of the features, and for each of the feature vectors the redeye detection module is operable to determine a respective one of the weights from multiple

values of a statistical measure that are derived from respective sets of image values corresponding to different respective regions of the input image; and
filter from the set ones of the candidate redeye pixel areas from the set classified as non-redeye pixel areas based on the generated feature vectors.

Claims 52-59 (canceled)

Claim 60 (new): A method of processing an input image, comprising:
identifying a set of candidate redeye pixel areas in the input image;
for each of the candidate redeye pixel areas, determining a respective feature vector comprising weights, wherein the determining comprises
calculating each of the weights in accordance with a respective feature template comprising a respective spatial pattern of basis regions each of which is associated with a respective rule for calculating a respective component weight value from values in a respective region of a scalar image derived from values of the input image,
wherein the calculating comprises for each of the weights,
calculating each of the respective component weights by applying the respective rules associated with the basis regions to values of respective regions of the scalar image, and
combining the component weight values to produce the weight; and
filtering from the set ones of the candidate redeye pixel areas classified as non-redeye pixel areas based on the determined feature vectors.

Claim 61 (new): The method of claim 28, wherein the determining comprises calculating the respective one of the weights from an average of the image values in each of the respective sets of image values.

Claim 62 (new): The method of claim 61, wherein the calculating comprises determining the respective one of the weights from one or more differences between the averages of the image values in the respective sets of image values.

Claim 63 (new): The method of claim 28, wherein the determining comprises calculating the respective one of the weights from one or more extrema in each of the respective sets of image values.

Claim 64 (new): The method of claim 63, wherein the calculating comprises determining the respective one of the weights from a difference between maxima and minima in each of the respective sets of image values.